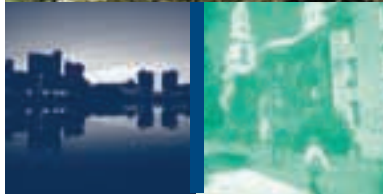
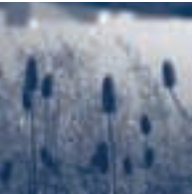


# THE UNIVERSITY AT BUFFALO THINKS GREEN



A report on Campus Environmental Sustainability  
by the UB Environmental Task Force

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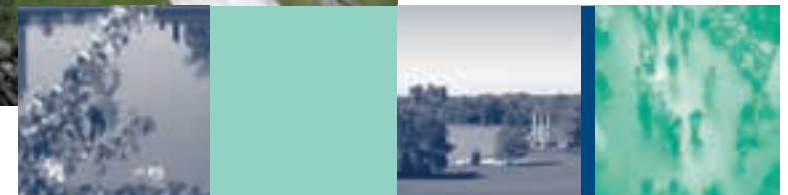
A report on Campus Environmental Sustainability  
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Printed in April 2004

# HOW GREEN IS UB?

## The University at Buffalo is:

- An international leader in the green campus movement.
- The focus of numerous articles and book chapters citing pioneers in campus green efforts, beginning with *Ecodemia: Campus Environmental Stewardship at the Turn of the 21<sup>st</sup> Century* (1995).
- A signatory of the Talloires Declaration, a ten-point action plan ratified by 300 college and university presidents for implementing environmental sustainability in teaching, research, public service and operations.
- A New York State leader in implementing Governor George Pataki's Executive Order 111, "Clean and Green State Buildings and Vehicles."
- Home to a strong, well-established campus-wide environmental effort led by UB's Environmental Task Force (ETF) with support from University Facilities, the UB Green Office, and many other campus units.



*"UB has been and is a recognized model for the State University of New York in energy conservation and campus environmental stewardship. We need to continue that progress as a community concerned about our environment. It is our responsibility to set an example for others to emulate."*

*Robert J. Wagner, Senior Counselor to the President*

# HONORS AND DISTINCTIONS



## The University at Buffalo has:

- Been recognized as 2003 “Environmentalist of the Year” by Environmental Advocates of New York for making the state’s largest wind power purchase.
- Won the Association of Energy Engineers’ “Energy Project of Year” award in 1997 for a \$17 million comprehensive energy conservation project.
- Had its Energy Officer inducted into the Association of Energy Engineers “Energy Managers Hall of Fame.”
- Been recognized for its environmental achievements in local, national, and international publications such as:

CNN

*The New York Times*

*The Chronicle of Higher Education*

*The Buffalo News, Business First, and ArtVoice*

Local and regional broadcast stations

Specialized journals such as *Facilities Manager and Planning for Higher Education*.

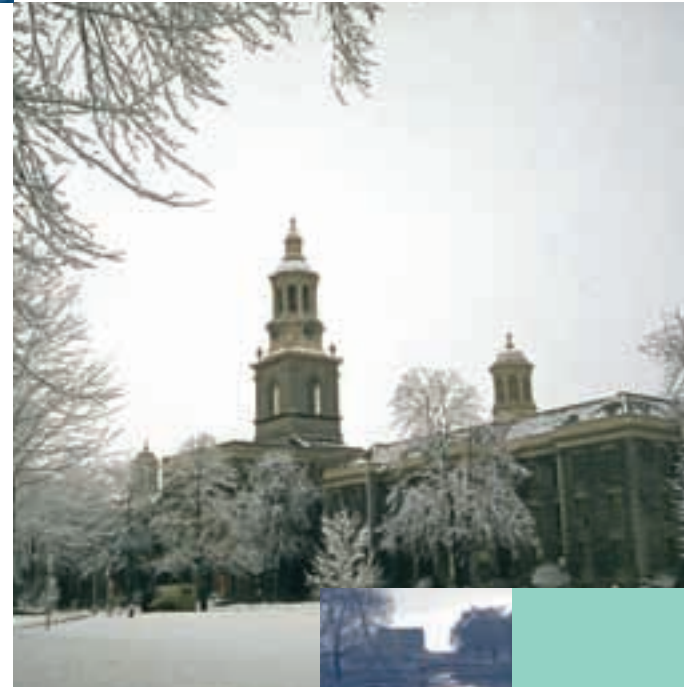
“UB’s green campus program helps us be good environmental citizens. I’m grateful for those building reminders to save energy, recycle, and live in our world lightly and well. They’ve made our public university better and more responsible. I turn off classroom lights and applaud wind energy and hope for solar panels--not just in general but right here at UB. I can’t applaud UB’s commitment to environmental responsibility enough!”

*Diane Christian, Distinguished Teaching Professor, English*

# ENERGY CONSERVATION

**UB is recognized nationally and internationally as a leader in campus energy sustainability. Some UB achievements include:**

- A nationally recognized campus energy conservation program.
- Hundreds of conservation measures and projects implemented since beginning the program in the late 1970s.
- Annual energy savings of over \$9 million and cumulative energy savings of \$60 million, as reported by a third-party auditor in 1996. Cumulative savings now estimated to be over \$100 million.
- National leadership in implementing large, comprehensive energy projects. The first comprehensive project focused on the North Campus, producing \$3 million a year in savings. A multi-million dollar comprehensive energy conservation project is now underway on UB's South Campus.
- A green computing energy awareness campaign, replicated by numerous other colleges and universities nationwide.
- A successful micro-turbine cogeneration installation serving the natatorium in Alumni Arena. Cogeneration involves the simultaneous generation of heat and electric power, significantly increasing efficiencies.
- Heating and cooling temperature policies of 68 degrees in winter and 76 degrees in summer to save energy, with estimated annual dollar savings of \$200,000 to \$400,000.



*"I don't know of many universities that have conservation officers, use windmills to generate electricity for the grid, and have an Environmental Task Force where faculty, staff and students work together on environmental issues. It is this rich combination of diverse environmental efforts that sets UB apart from other institutions of higher education."*

*Claude E. Welch, Distinguished Service Professor, Political Science*

# GREEN BUILDING DESIGN

## UB commits to green building design with:

- The first certified green building in Western New York, the Community Center at the Creekside Apartments complex on the North Campus. This building was certified LEED bronze. LEED stands for “Leadership in Energy and Environmental Design” and is the nationally recognized green building rating system established by the U.S. Green Building Council.
- A potential LEED silver or gold rated design for the University’s new Bioinformatics Building in downtown Buffalo.
- Over \$2 million in substantial renovation projects which meet the green design requirements of the Governor’s Executive Order 111.
- The development of UB High Performance Building Guidelines with other state agencies. The guidelines will influence and assist campus green design efforts at UB and other campuses in SUNY and nationally.
- Major efforts conducting green design training and outreach for the regional architectural and engineering community.



*“Over the past few years it has been a genuine pleasure to see how UB has become increasingly recognized at a national level regarding its positive and affirmative role in campus green initiatives and applications. From building renovation, new building proposals, master planning efforts, and renewable energy alternatives, UB serves as a model of ‘growing green’ - for campuses and the wider community.”*

*Dennis A. Andrejko, AIA, Associate Professor, Architecture*

# GREEN POWER

## UB has taken major steps toward using clean green power by:

- Becoming the largest purchaser of clean, renewable wind power in New York State. During 2003 and 2004, UB will buy a total of 20 million kilowatt hours of wind energy from New York State wind farms.
- Winning a \$500,000 NYSERDA grant to install a 100 kilowatt photovoltaic solar electric system on the roof of Norton Hall. This 10,000 square foot installation will be the largest such array at any college or university in New York State.

## GREEN PURCHASING

**UB “walks the walk” by implementing environmentally friendly purchasing practices:**

- UB is a national leader in the use of recycled paper. Over 50% of white copier and printer paper used at UB is 100% post-consumer content recycled paper, made without additional chlorine, reducing water pollution during manufacture.
- All new appliances and electronic equipment are Energy Star compliant.
- A campus SWAP website has been developed to enable campus offices to exchange office supplies, furniture, and other materials, thus reducing waste and unnecessary additional purchasing.

*“The University at Buffalo’s commitment to improve the environment through UB Green, the Environmental Task Force, and various other activities and committees, has been steadfast, pro-active and culturally changing. It has made an environmental difference in the way we conduct our business and educate our students. UB’s environmental efforts have been recognized not only within SUNY, but throughout the world.”*

*Judith K. Miller, Assistant Vice President for Procurement Services*



## RECYCLING

**The university has been a leader in the recycling revolution. At UB:**

- Waste paper is recycled at every faculty and staff desk.
- Paper and “co-mingles” (metal, glass and plastic) are recycled at over 100 recycling stations on both campuses.
- 35% of UB’s solid waste stream is recycled.
- Other waste materials routinely recycled at UB include fluorescent lamps and ballasts, tires, motor oil, computers, clothing, computer diskettes and CDs, scrap metal and concrete.

## ALTERNATIVE-FUELED VEHICLES

UB's campus fleet has a gentler environmental impact with:

- 32 alternative-fueled pick-up trucks and vans which run on cleaner burning compressed natural gas (CNG).
- 20 dedicated CNG vans on order.
- A campus CNG refueling station on the North Campus, which regularly refuels 50 vehicles including campus buses.



- Purchase of hybrid gas-electric vehicles such as the Honda Civic hybrid.
- Investigation of biodiesel fuel for Facilities diesel vehicles.
- Use of electric vehicles by Facilities shops.

## GREEN SPACES

UB's grounds stay green through:

- A no-pesticide policy for the grounds of both campuses, except on playing fields—a sustainable practice adopted after an exhaustive investigation of the health and environmental effects of lawn care chemicals.
- Creation of natural regeneration areas on campus, where grass is not cut and nature is allowed to take its course.
- Protection of wild or natural areas on campus such as Letchworth Woods.
- Implementation of a landscaping master plan, which specifies indigenous trees and plants.
- A grounds maintenance program beautifying the campus with numerous flower beds.

*"We've had a wonderful experience with the UB Grounds staff. They have planted trees with our children for Earth Day, they've put recycling bins in our centers, which are working wonderfully and they've helped educate our staff on environmental issues."*

*Tamar Jacobson, Director,  
UB Child Care Centers*

# ENVIRONMENTAL AWARENESS

## UB makes environmental awareness a priority through its:

- 20 campus energy and environmental policies endorsed and supported by university leadership.
- Environment and Society Institute, which encourages student environmental research and applies UB faculty expertise to help solve community environmental problems.
- Numerous departmental and interdisciplinary environmental teaching and research programs.
- UB Environmental Network student activist group.
- Building Conservation Contacts Network—170 faculty and staff who serve as liaisons between their offices and campus environmental programs.
- Think Green awareness program which uses booklets, posters, and campus partnering organizations to encourage members of the campus community to help conserve energy, recycle, and reduce UB's environmental footprint.
- The UB Green website (<http://wings.buffalo.edu/ubgreen>) which receives 10,000 visits per month by people on and off campus, serving as a national and international resource for green campus efforts.
- The UB Green Library at the South Campus Service Building, a unique educational resource with hundreds of books and videos on green design, energy, and environmental issues.
- Participation in community-wide environmental activities, such as Western New York Earth Day and the Tour of Solar Homes and Green Buildings.



*"Because I'm an outdoor person and a hiker, I really think that the places where people live and work need to include greenspace, and I'm really glad that the university has tried to do that. I love Letchworth Woods and the natural regeneration areas on campus, and I hope UB continues to be sensitive to preserving greenspace as we build. It's not only environmentally healthy, but it's important for people's mental health."*

*Barbara Burke, Associate Director,  
Office of Equity, Diversity and Affirmative Action Administration*

## WHAT'S NEXT FOR UB'S GREEN CAMPUS PROGRAM?



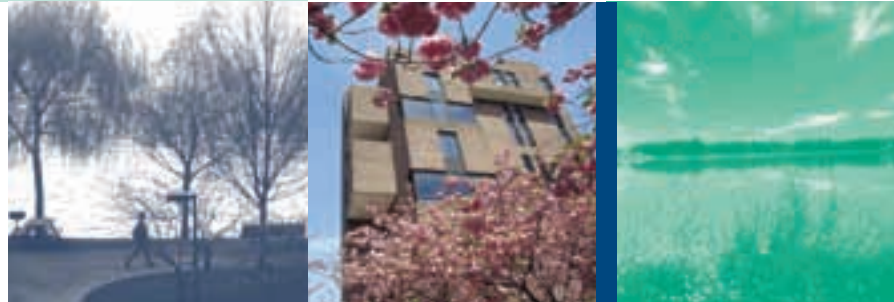
**Even with all we have accomplished, there is still much more to do in order to reduce UB's environmental footprint. The UB Environmental Task Force has identified the following possible next steps:**

- Kickoff a campus-wide interdisciplinary conversation and research project to envision and develop ideas, designs, and plans for achieving a genuinely sustainable campus.
- Create and implement an eco-literacy program so that all UB graduates are knowledgeable and concerned about the environmental challenges facing our society and planet.
- Increase campus reliance on renewable energy resources by installing solar and wind energy technologies on campus and buying more green power.
- Set a national example and only purchase 100% post-consumer content recycled paper for all copier and printer paper needs.
- Exceed a 50% recycling rate on campus, surpassing the requirements of Governor's Executive Order 142.
- Begin a yard and food waste composting program.
- Raise the bar for all UB new construction, setting LEED silver as a minimum threshold.
- Construct a LEED Platinum building worthy of national attention.
- Establish an annual green campus summit with campus leadership to assess where UB stands, environmentally, and to ensure continued progress and success.

*"Progressing toward a sustainable society will require critical and creative thinking, free sharing of knowledge, and willingness to embrace change. Universities can play a pivotal role in this transformation, and UB has shown that it is a regional and national leader in finding workable solutions to our many environmental problems."*

*Barry Boyer, Professor of Law  
and President of Friends of the Buffalo Niagara Rivers.*

## AFTERWORD: REFLECTION ON ENVIRONMENTAL SUSTAINABILITY



“Environmental sustainability” asks us to consider the impact of our current actions on the long term health of the Earth’s ecosystems and on the prospects for future generations. The subtitle of this report, “A Report on Campus Environmental Sustainability,” connects its content with this important concept and suggests that UB has achieved some measure of sustainability.

While environmental sustainability is widely used to mean environmental responsibility and stewardship, strictly speaking an environmentally sustainable activity is one which can be undertaken for countless years without causing environmental degradation. Native Americans spoke about making decisions based on an evaluation of the consequences of an action over seven generations. United Nation’s documents have described a sustainable society in terms of its ability to meet the needs of today’s generations without compromising the lives of those yet to come. What would that mean?

- Minimal consumption of all natural resources.
- Reuse or recycling of all waste.
- No polluting beyond what ecosystems can break down and recycle naturally.
- Total reliance on clean, renewable energy technologies to meet our energy needs.

This is a tough standard but it represents the real meaning of environmental sustainability. Obviously, as individuals, as a campus, and as a society, we have a long way to go before our actions and activities are genuinely sustainable. While the University community deserves to congratulate itself for its current achievements (and we celebrate them in this report), it’s important to keep in mind that we have only taken our first steps. There is much room for improvement, but with everyone’s support we can keep moving in the right direction.

This report was produced by the UB Environmental Task Force (ETF) in April of 2004. The ETF consists of UB staff, faculty and students working together to reduce UB's environmental impact. New members are always welcome! To join the ETF or for more information about the ETF or about any UB environmental program, please contact:

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**(716) 829-3535**  
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**<http://wings.buffalo.edu/ubgreen>**